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FORESTRY IN A NEW LANDSCAPE

SECRETARIAT NOTE

Introduction

1. The world is experiencing a number of complex and sometimes interrelated transitions, including moving toward new geopolitical and economic balances, toward more urbanized societies, toward unprecedented technological change and toward a lower carbon and more sustainable future. At the same time, the world is experiencing more frequent and more severe climate-related disasters as well as demands for social equity across many spheres – between rich and poor, between those who have benefited from globalization and those who have not, and across genders and among generations. These demands are being expressed with increasing intensity and are reflected in new political realities. The transitions have created a markedly different world compared to the turn of the millennium and even since the completion of the Asia-Pacific Forest Sector Outlook Study in 2010; thus the landscape that forestry operates in is both new and rapidly evolving. Meeting the challenge of managing forests and forestry through these transitions and the risks they entail – including ensuring that forestry proactively contributes to shaping change – will require sound strategic thinking, wise investment and broad cooperation, among stakeholders and at international levels.

New economic and technological landscapes

2. Economic recovery from the global financial crisis of 2008-2009 has been relatively slow and subdued in many countries, particularly among advanced economies. Some economists are questioning whether it is feasible for growth rates in advanced economies to consistently return to the levels achieved through the latter part of the twentieth century and there has been a resurgence in interest in the conclusions of the Club of Rome's *The limits to growth* report written in 1972,¹ which highlighted “the contradiction of unlimited and unrestrained growth in material consumption in a world of clearly finite resources”. Certainly, if strong growth is to be sustained it will need to be a different type of growth, based on renewable energy and resources rather than fossil fuels and other non-renewables, more careful and efficient use of resources, and driven by science, technology, innovation, skills and education. A global transition from industrial and postindustrial economies to new, knowledge economies is a key attribute of the new landscape confronting forestry. As a renewable resource, forests – and the products

¹ Meadows D.H., Meadows, D.L., Randers, J. & Behrens III, W.W. 1972. *The limits to growth*. Club of Rome. Universe Books.

and services they provide – are fundamentally well-positioned to capitalize on this transition. However, much attention needs to be given to developing knowledge aspects in forestry if it is to realize its full potential.

3. In Asia and the Pacific, other important economic transitions are occurring that are changing the economic landscape. In China and several other newly advanced economies, growth appears to be gradually slowing as economies shift from investment-led to consumption-led growth models. This is reflected in weakening of demand for many raw materials and consequent weakening in many commodity prices. Various other emerging economies in Asia and the Pacific are having to make adjustments to the end of this ‘commodities super-cycle’, – which has underpinned much of their growth so far this century, as well as causing high prices for food and other raw materials, including many forest products. At the same time, international tourism continues to increase rapidly, with global international arrival numbers almost doubling since 2000. Tourism provides significant opportunities for new revenue streams for forests and local communities. At the same time, rapid growth in visitor numbers is straining supporting infrastructure and contributing to degradation in many of the most popular forest parks and reserves.

4. A major challenge confronting most countries are large income disparities between those at the top of national income and wealth distributions and those at the bottom. In many Asia-Pacific countries, poverty is still widespread and meeting the overarching challenge of the Sustainable Development Goals (SDGs) – to end poverty and hunger by 2030 – will require enormous efforts by all levels of society. In the meantime, pressures are increasing for economic reforms that deliver more equitable outcomes. In rural areas of less-developed countries, where poverty is often endemic, forestry may offer opportunities to help raise living standards, build resilience and eliminate impoverishment. However, countries also need to be aware that, often, reliance on inadequate forest-based incomes may contribute more to perpetuating, rather than alleviating, poverty.

5. Technological changes are expected to have major impacts on forests and forestry, both directly and indirectly. Production of wood and other products and their processing have undergone considerable changes in many countries in the region, although the speed at which new technologies have been adopted is extremely varied. New products and services will continue to emerge and considerable thrust will be given to enhancing efficiency in the use of energy and materials. New technologies on the horizon – for example, artificial intelligence, robotics and genomic engineering – could bring about major disruptive changes and there is a need to understand the nature of uncertainties that forestry will have to deal with in the context of developments in science and technology.

6. A particular challenge may be the impacts of skill-biased technological change, which tends to enrich educated and skilled workers, but disadvantages those with limited or non-transferable skills. Technological changes affecting production, mobility, communication, energy and other systems are occurring with unprecedented speed and scope, causing disturbances in many spheres including employment patterns, to social relationships and geopolitical stability. In forest industries, technological advancements in robotics, sensors and machine learning are likely to enable (or have already enabled) substantial automation throughout the value chain, including silviculture, harvesting, primary wood and fibre-processing, and manufacturing of downstream componentry and finished products. In many developed economies, especially, job losses in forestry ‘mill towns’ have eroded whole communities, often because forest resources have been depleted, but also where automation has substituted for human labour. Similar labour displacement in forestry in emerging and newly advanced economies will likely occur as more advanced technologies are adopted.

New societal landscape

7. While societies have always made demands for goods and ecosystem services from forests, in recent times the range of demands has intensified. In particular, expectations have risen that goods and services should be provided in ways that are environmentally-friendly and ecologically sustainable. In newly advanced and emerging economies, the rise of an increasingly affluent and educated middle-class

has been accompanied by new sets of values encompassing ecological concerns about climate change, resource depletion, land and water degradation, and biodiversity conservation. At the same time, rising prosperity and a growing middle class have led to greater demands for better governance, which many institutions and governments across the developing world have struggled to meet.

8. In some countries, there is evidence of an increasing divide between rural and urban communities. Rapid urbanization is a key trend in the Asia-Pacific region with the proportion of urban dwellers expected to increase from 38 percent in 2005 to 47 percent by 2020. As populations become more urbanized, there is an accompanying disconnect with the land and land-based sectors, such as forestry. With the bulk of the rising middle class also located in cities, there may be a tendency for perceived ‘urban’ values to be projected onto rural communities – and particularly, an expectation that rural communities should bear the costs of implementing these values – thereby creating disaffection and division.

9. Another emerging divide is across generations as ongoing rapid social and economic change have widened intergenerational gaps in values and disrupted traditional patterns of affiliation and community. In particular, younger generations increasingly perceive that older generations such as the Western ‘Baby Boomers’ have benefited from resource extraction, depletion and degradation, but left a suite of environmental problems for subsequent generations to contend with. At the same time, older and less-educated people may increasingly feel marginalized by changing values in areas such as gender, multiculturalism, environmental protection and international cooperation.

10. The role of communications’ technologies and social media has transformed many sectors and forestry is no exception. Social media enables communication and can also work to connect, inform, engage, mobilize, and encourage innovation and democracy. Information can be acquired rapidly and in particular, the use of mobile phones has enabled stakeholders to share information and data quickly. There are major opportunities for forestry to capitalize on these technologies and systems to share information, implement various types of informal monitoring systems, and promote key messages. However, social media may also pose significant challenges for sectors such as forestry. As social media has become a primary news source for literally billions of people, so too has its power increased to misinform, manipulate and distort public opinion. Understanding how social media works is vitally important for the forest sector to communicate its messages effectively. For example, social media tends to promote “confirmation bias”, by developing communities of like-minded individuals who share information that reinforces their commonly-held opinions. Similarly, platforms such as Facebook use algorithms to select and personalize the information each user receives, based on assessments of their interests and opinions. A different challenge is the oversimplification of information exemplified in platforms such as Twitter, where severe restrictions are imposed on message lengths.

New environmental landscape

11. The expectation of increasing frequency and intensity of climate-related natural disasters as a result of global warming has created a new environmental landscape in which forests and forestry are important components and have key roles to play. Globally, the severity of recent disaster events including droughts, floods, landslides, storm surges, cyclones and wildfires has increased speculation that global warming is already impacting on extreme weather events. The United Nations University’s Institute for Environment and Human Security compiles an annual World Risk Index, which calculates the risk of becoming the victim of a disaster resulting from an extreme natural event for 171 countries. A country faces a high risk if it is highly exposed to natural hazards and if its society is highly vulnerable. A number of Asia-Pacific countries rank highly in the World Risk Index including Vanuatu (1); the Philippines (2); Tonga (3); Bangladesh (5); Solomon Islands (6); Cambodia (9); Papua New Guinea (10); Timor-Leste (11) and Brunei-Darussalam (12).

12. Forests and forestry often can play crucial roles in mitigating some natural disasters and their impacts, and in post-disaster reconstruction and recovery. Evidence from the Asia-Pacific region demonstrates that forests, when appropriately planned and managed, can withstand and offer protection

against natural disasters of varying degrees and types including storm surges, cyclones, droughts, landslides and floods. Appropriately planned forests and tree planting can mitigate the spread and impacts of wildfires, rehabilitate landslide-affected areas, help to stabilize slopes and protect riparian zones. However, trees and forests also have limitations in the degrees of protection they can provide.

13. The Paris Agreement on Climate Change targets maintaining global temperature increases by less than 2°C. However, according to World Bank (2014) projections,² the world is currently on a trajectory that would increase the average global temperature by four degrees before the end of the century. The consequences of such warming would be devastating – for global food security, loss of biodiversity and the delivery of ecosystem services. For forests, such temperature shifts are likely to encompass far-reaching impacts on underlying system characteristics, such as species composition and relationships among plants, herbivores and pollinators. A four degree temperature increase would be accompanied by significant potential for ecosystem collapse as a result of heat and/or water stress and changes in the ranges and the impacts of pests and diseases. Extensive human migration to escape the worst effects of climate change may also place increased burdens on forest areas. Increasingly, the forest sector needs to consider appropriate and feasible responses to these risks.

14. The “new environmental landscape” encompasses a range of other emerging issues, challenges and approaches of relevance to forestry. Included among these are longer-term issues such as land, water and soil degradation, desertification and failures in biodiversity conservation, for which there is increasing urgency to find solutions. Central to forestry responses is the increasing recognition of the importance of integrated/ecosystem/landscape approaches in order to maintain the provision of vital ecosystem services such as clean and adequate supplies of water, maintenance and improvement of biodiversity habitats, recreational and ecotourism opportunities, as well as contributions to food security and nutrition and provision of clean and renewable energy and the vast array of other wood and non-wood products that forests provide.

New political landscape

15. Political polarization in both the Asia-Pacific region and worldwide is a significant feature in the emerging political landscape. In a number of countries, public disaffection with the status quo has gained traction – largely because the benefits of growth have not been shared equitably – and in some cases more nationalistic policies have prevailed. An overarching trend has been a backlash against globalization, regionalization and trade, along with more inward-looking policies in some countries. In the Asia-Pacific region, recent developments in the trade negotiations are likely to have substantive impact on trade among many of the participating countries, including on trade in forest products. Nonetheless, most Asia-Pacific economies are continuing to embrace globalization and encourage increased trade, especially through massive investments in transportation infrastructure – for example, the ‘One Belt and One Road’ initiative. A change in the pace of globalization – either acceleration or deceleration – will impact forests and forestry in multiple ways. Forestry policies and strategies at the national levels need to have a better grasp of the emerging opportunities and challenges stemming from alternative scenarios of globalization.

16. Despite the blame attributed to globalization that has catalyzed reactionary political change in some countries, the real cause of economic malaise and deteriorating labour market prospects is more likely technological change. As discussed above, substitution of labour by capital and technology, has caused significant unemployment and worsened the economic prospects for many lower-skilled workers.

New institutional landscape

² World Bank (2014). Turn down the heat: confronting the new climate normal.

17. In September 2015, the United Nations General Assembly adopted ‘Transforming Our World: The 2030 Agenda for Sustainable Development’ a global plan of action focusing on people, planet, prosperity, peace and partnership. As one of the major terrestrial ecosystems, forests can make important contributions to meeting most, if not all, of the SDGs including to the overarching goals of eliminating poverty and hunger, but also across such diverse spheres as health and well-being, energy, gender equality, economic growth and climate action. The Agenda encompasses 17 SDGs in a holistic development framework addressing the social, economic, environmental and cultural pillars of sustainable development. Forests are specifically addressed under two of the SDGs:

- SDG 6: Ensure availability and sustainable management of water and sanitation for all; and
- SDG 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.

Importantly, Target 15.b calls for mobilization of "significant resources from all sources and at all levels to finance sustainable forest management and provide adequate incentives to developing countries to advance such management, including for conservation and reforestation".

18. Prior to the 2030 Agenda for Sustainable Development, the Rio+20 Conference produced an outcome document, ‘The Future We Want’, which stressed the importance of improving the livelihoods of people and communities by creating the conditions required to sustainably manage forests. It also recognized the importance of addressing forest-related issues in a holistic and integrated manner, and in promoting international policy coordination and cooperation in order to achieve forest management. It particularly called for the mainstreaming of SFM and practices into economic policies and decision-making.

19. The future of forests and forestry in sustainable development at all levels was at the core of the XIV World Forestry Congress, held in Durban, in September 2015. The Durban Declaration called for new partnerships among forest, agriculture, finance, energy, water and other sectors, as well as engagement with indigenous people and local communities.

20. The landmark Paris Agreement on Climate Change, also in 2015, was endorsed by 195 countries agreeing to reduce emissions and to enhance greenhouse gas sequestration capability. The Paris Agreement recognized the key role that forests and forestry can play in combating climate change and most countries have identified forestry as an important component in their Nationally Determined Contributions (NDCs). This is likely to have a significant impact on the pathway of forestry development in many countries. National and international funding for SFM is expected to increase, potentially taking forestry along a trajectory of development different from what was envisaged earlier.

21. The 23rd Session of the Committee on Forestry (COFO) considered the potential for working towards a common vision for implementing the 2030 Agenda, by utilizing five interconnected principles, developed by FAO, as a common framework to support policy dialogue and to identify sustainability issues and possible actions across different SDGs in different sectors and along related value chains. The five principles are: (i) Conserve, protect and enhance natural resources; (ii) Enhance the efficiency of resource use; (iii) Improve and protect livelihoods and human well-being; (iv) Enhance the resilience of people, communities and ecosystems; and (v) Promote and improve effective governance. The Committee invited Members to use the five interconnected principles as an approach to promote sustainability for agriculture, forestry and fisheries and noted their potential to strengthen inter-sectoral policy dialogue to more effectively deliver joint contributions to the 2030 Agenda and the SDGs.

22. Including the SDGs, the Durban Declaration, the Paris Agreement on Climate Change and a wide variety of other instruments, declarations and agreements dating back more than 25 years and including the Rio Earth Summit’s ‘Forest Principles’ and Agenda 21, the Non Legally Binding Instrument on All Types of Forests, the Bonn Challenge, the New York Declaration on Forests and a number of others, a highly supportive institutional framework for forests and forestry has been

established. Forestry agencies in Asia-Pacific countries may usefully capitalize on this broad framework of agreements in their advocacy for forestry.

Responses in Asia-Pacific forestry

23. The wide range of issues identified, including reviving economic growth; reforming economic systems; rebuilding social and community connections; managing technological change; distributing economic benefits more equitably; revisiting approaches to globalization; and strengthening efforts in environmental protection will all impact, to some extent, on forests and forestry. There is increasing realization that management of natural resources, in particular dealing with land, water and forests, needs to adopt landscape approaches that encompass economic, social, ecological and cultural linkages. Landscape approaches will bring about fundamental changes in the way resources are managed and this will have major implications on how forest land is managed. As part of this, a variety of other new approaches and strategies for forest management may help to steer forestry along a more desirable development path that enhances the contribution of forests to societal well-being. For example, a transition from managing for 'economies of scale' to seeking 'economies of scope', i.e. identifying factors that make it cheaper to produce a range of products together rather than to produce them individually. This concept underpins landscape approaches to forest and land restoration by recognizing the benefits of synergies within patterns of land use.

Points for consideration

24. Reflecting on the keynote presentation and the issues raised in this Secretariat Note, the Commission may wish to:

- Consider how forest transitions might unfold in Asia and the Pacific during the next decade and beyond, and what types of interventions may be required to manage transitions to ensure optimal outcomes?
- Consider opportunities for increased collaboration or recommend collective action to address various common challenges, both current and anticipated, confronting the forest sector in Asia-Pacific countries to ensure that forestry proactively contributes to shaping change;
- Identify opportunities for enhanced collaboration and knowledge-sharing among countries to ensure forest policies respond to the new landscapes appropriately, including potential for scaling-up activities of the Asia-Pacific Forest Policy Think Tank;
- Discuss modalities, including potential for enhanced collaboration, to foster and accelerate reform of forest institutions in view of forest transitions and the emergent new landscapes;
- Consider ways in which younger generations of foresters might be better prepared to cope with the emerging landscapes, including potential reforms necessary in forestry education; and
- Recall discussions during the 23rd Session of the Committee on Forestry (COFO) on the using five interconnected principles developed by FAO to strengthen policy dialogue on agriculture, forestry and fisheries and to enhance governance capacities to effectively deliver joint contributions to the 2030 Agenda and the SDGs and report on efforts and progress to utilize these.